

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
INTERNALLY MANAGED GLOBAL EQUITY INDEX FUNDS**

April 21, 2008

This Policy is effective immediately upon adoption and supersedes all previous Equity Index Funds – Internally Managed and Dynamic Completion Fund – Internally Managed policies.

I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee (“Committee”), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy (“Policy”) for the Internally Managed Equity Index Funds - (“Funds” or “Portfolios”). Throughout this Policy, Funds and Portfolios are used interchangeably. The design of this Policy ensures that the investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System (“CalPERS”) take prudent and careful action while managing the funds. Additionally, use of this Policy assures sufficient flexibility in managing investment risks and returns associated with the Funds.

II. STRATEGIC OBJECTIVE

Obtaining broad equity market exposure achieved by closely tracking the designated benchmark indices is the strategic objective of the Funds.

The Funds shall be managed to accomplish the following:

- A. Enhance CalPERS' total return;
- B. [Hedge](#) against active (pre-retirement) liabilities; and,
- C. Provide diversification to CalPERS' overall investment program.

III. RESPONSIBILITIES

- A. CalPERS' Investment Staff (“Staff”) is responsible for the following:

1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
 2. Reporting internally to senior management concerning the implementation of this Policy. Staff reports will be prepared monthly to include, but not be limited to the following:
 - a. Current market value of the Portfolios;
 - b. Performance of the Portfolios versus the benchmarks as reported by the master custodian; and
 - c. Performance attribution analysis that accredits return to its causes.
 3. Reporting to the Committee as needed about the performance of the Funds. The General Pension Consultant is responsible for reporting quarterly to the Committee, as described in section III.B.
 4. Monitoring the implementation of, and compliance with, the Policy. Staff shall report material concerns, problems, changes, and all violations of Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action.
 5. Purchasing only securities that are outlined in this Policy.
- B. The General Pension Consultant (“Consultant”) is responsible for:

Monitoring, evaluating, and reporting quarterly, to the Committee, on the performance of the Funds relative to the benchmarks and Policy. The Consultant is responsible for reporting any non-compliance issues in accordance with its responsibilities under its contract with CalPERS.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

A. Performance Objective

Achieving the return for the broad equity market is the performance objectives of the Funds. To accomplish this objective, using statistical models to approximate the return of the market, rather than replicate, may be more cost effective.

Return deviations between the Portfolios and the designated benchmarks are expected to be random. To account for the difference in the

methodology for calculating the returns of the benchmarks and the Portfolios, the resulting return deviation may require an adjustment. CalPERS shall set parameters in the statistical models it employs in such a manner that [tracking error](#) shall be within the following thresholds:

1. Domestic Equity Index: [Forecasted tracking error](#) shall be within \pm 50 basis points; realized returns should fall no more than 50 basis points below the benchmark over any 12 month period.
2. Domestic Microcap Index: Forecasted tracking error shall be within \pm 300 basis points; realized returns should fall no more than 300 basis points below the benchmark over any 12 month period.
3. International Equity Index: Forecasted tracking error shall be within \pm 25 basis points; realized returns should fall no more than 25 basis points below the benchmark over any 12 month period.
4. [Dynamic Completion Fund](#): Forecasted tracking error shall be within \pm 150 basis points; realized returns should fall no more than 150 basis points below the benchmark over any 12 month period.

B. Benchmark

Independent sources are responsible for maintaining the benchmarks as well as calculating and reporting the return of the benchmarks to CalPERS.

1. Domestic: The benchmark for the Fund shall be entitled the "[CalPERS Custom Dow Jones Wilshire 2500 Index](#)". This custom benchmark shall be constructed and maintained by Wilshire Associates. It shall be defined as the top 2500 securities of the Dow Jones Wilshire 5000 (excluding tobacco stocks) with dividends reinvested, and be based on market capitalization and annual [reconstitution](#). Its composition shall provide broad market exposure to the total U.S. equity market while minimizing transaction costs.
2. Domestic Microcap: The benchmark for the Fund shall be entitled the "[CalPERS Custom Wilshire Microcap Index](#)". This custom benchmark shall be constructed and maintained by Wilshire Associates. It shall be defined as the Wilshire 5000 (excluding tobacco stocks) less the CalPERS Custom Wilshire 2500 Index stocks with dividends reinvested, and be based on market capitalization and annual reconstitution. Its composition shall provide the remaining exposure to the total U.S. equity market that the CalPERS Custom Wilshire 2500 Index omits.

3. International: The benchmark for the Fund shall be entitled the “CalPERS FTSE All World, Developed, ex US, ex Tobacco, [Capitalization Weighted](#) Index”.
4. Dynamic Completion: The benchmark shall be entitled the “CalPERS Custom DCF Benchmark” (“Benchmark”). A nationally recognized vendor experienced in constructing benchmarks shall develop and maintain this custom benchmark. Its construction shall be a function of the style and [market capitalization](#) biases generated by the Active Domestic Equity managers in the aggregate. The Benchmark shall complement the above-mentioned biases.

The Benchmark shall vary with time as changes occur in the [active manager program](#). Changes to the program include alteration in the allocation to managers, the addition or deletion of managers, or changes in the active manager’ benchmark as the market goes through its cycle. Consequently, the Benchmark may have risk exposures that differ significantly from CalPERS Custom Dow Jones Wilshire 2500 Index. Additionally, the composition of the Benchmark shall reflect the liquidity constraints encountered by large funds such as CalPERS.

V. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approaches

The Portfolios shall be managed in a structured fashion to achieve the stated performance objective. Structured investing can be achieved through replication or through an optimized, [sampled](#) approach to generate an actual Portfolio with risk characteristics closely resembling the benchmark. The actual implementation used for each Portfolio will be dependent on the specific characteristics of the applicable benchmark. A benchmark with a broader number of constituents and greater exposure to small capitalization securities will typically not be replicated due to liquidity and trading cost considerations.

Where an [optimization](#) approach is employed, a statistical risk model is used to define and decompose the Portfolio’s risk exposures versus those of the benchmark. [Fundamental risk models](#) measure stock returns associated with industry and other fundamental factors such as domicile, [price/earnings](#) (P/E), yield, and market capitalization. Such fundamental factors are referred to often as [“common factors”](#).

A common factor is an element of return that influences many securities and, hence, is a “common factor” in the returns on those securities. Based

on the current Portfolio's exposure to country, industry, and common factors, the volatility of returns can be estimated. The information about volatility produced by a fundamental risk model can be used to evaluate Portfolio risk, decompose Portfolio risk according to common factor exposures, and evaluate how much of a Portfolio's return in a given period was due to each common factor exposure and how much was due to stock selection.

B. Specific Risk Parameters

Specific risk parameters shall limit the return deviation of the Portfolio versus the benchmark. Use of a number of different models shall ensure that the risk parameters are within an acceptable tolerance level to achieve the performance objectives. Since CalPERS may add or eliminate models, the specific risk parameters for each model are detailed in the Procedures Manuals.

Implementation of this program shall comply at all times with CalPERS' investment policies including, but not limited to, the following:

1. Emerging Equity Markets Principles;
2. Statement of Investment Policy: Development of Derivatives – Strategies; and
3. Proxy Voting Policies.

C. Restrictions

The Portfolio may not purchase the securities of primary tobacco companies as identified by the Investor Responsibility Research Center Tobacco Company List.

D. Permissible Securities

1. Equity and associated securities of global publicly traded companies.
2. The Portfolio may hold securities not represented in the designated benchmark. Generally, these holdings in aggregate shall be limited to less than 3% of the Portfolio's total market value. Such holdings are justified by the following reasons:
 - a. Liquidity constraints or excessive transaction costs, such as those required to sell certain securities obtained from corporate actions or from past benchmark reconstitutions; or

- b. Are held as a proxy for a benchmark asset that is illiquid or unavailable; or
- c. Expectation of inclusion in the benchmark at the next reconstitution.

3. Derivatives, as detailed in Section VII.

E. Corporate Actions

Corporate actions (e.g., [tender offers](#), [mergers](#), [Dutch-auctions](#), or [spin-offs](#)) shall be handled on a case-by-case basis.

Companies which offer discount [Dividend Reinvestment Programs](#) (DRIP) and similar programs will be analyzed to determine if return enhancement can be added by participating in such programs.

F. Rebalancing and Trading Activity

The rebalance decision for any Portfolio is primarily based upon analysis of risk and potential performance deviation from the benchmark. Portfolio rebalancing shall be performed as necessary to maintain the Portfolio's risk characteristics in accordance with those of the benchmark. At a minimum, the Portfolio shall be reviewed monthly and at reconstitutions. The Portfolios will be analyzed to reduce [systematic](#) and [nonsystematic risk](#) while minimizing transaction costs.

A variety of trading techniques and liquidity sources shall be utilized to obtain best execution of the approved trade list.

Transaction cost analysis shall be performed and evaluated on a quarterly basis for monitoring trading efficiency as compared to that of a like universe. An outside vendor may prepare this analysis.

G. Strategy Monitoring

A monthly reporting package shall be prepared for each strategy by the Internal Equity staff assigned to manage the strategy. The reports to be included shall be those needed and appropriate to allow monitoring by more senior Internal Equity staff of the management process, risk acceptance and performance of each strategy. This reporting package may vary depending on the management process, benchmark and performance objective unique to each strategy and shall be described in the procedures manual.

The Consultant shall include strategy level information in their quarterly report to the Committee.

VI. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS' Custodian.

VII. DERIVATIVES AND LEVERAGE POLICY

A. Strategies

The Fund may utilize financial futures, equity swaps and options in the Portfolio for the following purposes:

1. Permitting the investment of dividends received;
2. Equitizing cash and dividends receivable;
3. Allowing adjustment of the Portfolio's risk characteristics in the most cost effective manner available;
4. Facilitating investment of cash flows related to contributions, withdrawals, or asset allocation compliance.

B. Justification

Justification for the above mentioned strategies includes the following:

1. Reducing transaction costs in comparison with the purchase of underlying securities;
2. Equitizing non-spendable cash exposures (e.g. dividend accruals) to get a highly correlated return on that component of the Portfolio;
3. Providing the ability to alter risk characteristics versus the benchmark without disrupting the underlying Portfolio or unnecessarily increasing turnover; and
4. Obtaining matched returns between the benchmark and the Portfolio through investment in custom equity swaps and currency forwards.

C. Restrictions

Restrictions on the above mentioned strategies include the following:

1. Writing uncovered calls is prohibited;
2. Leveraging is prohibited. The use of futures contracts as specified in this Policy will not constitute leverage;
3. With the exception of equity swaps and currency forwards, trading non-exchange traded derivatives is prohibited;
4. Speculating is prohibited;
5. Use of non-CFTC approved futures contracts is prohibited; and
6. Portfolio specific position limits will be established and monitored as detailed in the applicable procedures manual.

D. Permissible Derivatives

Derivatives utilized in the index Portfolio may include, but are not limited to the following:

1. Index futures;
2. Style futures;
3. Index options;
4. Currency forwards;
5. Equity swaps;
6. Exchange Traded Funds (ETF); and
7. Closed End Funds.

E. Futures Commission Merchants (FCM)

Futures Commission Merchants are selected with the following broad range of criteria:

1. Low cost clearing and executing charges;
2. Securely capitalized firm;
3. Clear account statements and efficient reconciliation;

4. Responsive personnel;
5. Discrete and efficient operation;
6. Personal interview; and
7. Reference checks.

VIII. GLOSSARY OF TERMS

Key words used in this policy are defined in CalPERS' Master Glossary of Terms.

Domestic Equity Index Fund – Internally Managed

Adopted by the Investment Committee:	September 16, 1996
Revised by the Policy Subcommittee:	May 13, 1999
Approved by the Investment Committee:	August 16, 1999
Revised by the Policy Subcommittee:	December 8, 2000
Approved by the Investment Committee:	March 19, 2001

Name Change to Equity Index Funds – Internally Managed

Revised by the Policy Subcommittee:	March 11, 2005
Approved by the Investment Committee:	April 18, 2005
Revised by the Policy Subcommittee:	June 10, 2005
Approved by the Investment Committee:	August 15, 2005

Name Change to Internally Managed Global Equity Index Funds (incorporates DCF policy)

Revised by the Policy Subcommittee:	March 17, 2008
Approved by the Investment Committee:	April 21, 2008

Asset Class Glossary: Equities
Policy: Internally Managed Global Equity Index Funds
April 21, 2008

Active Management

An investing strategy that seeks to outperform the broad market benchmark by creating a portfolio that is different from the broad market benchmark. In equities, this is usually accomplished by overweighting and underweighting specific sectors or securities relative to the benchmark.

Benchmark

A set of securities with associated weights that provides a passive representation of a market segment. A benchmark's return is often used as a comparative measure of a manager's performance results in an active portfolio.

CalPERS Custom Dow Jones Wilshire 2500 Index

The Dow Jones Wilshire 2500 Index, excluding tobacco stocks, and with dividends reinvested. The standard Dow Jones Wilshire 2500 comprises the top 2500 securities of the Dow Jones Wilshire 5000 Index, including Real Estate Investment Trusts and tobacco stocks, based on market capitalization, and is reconstituted annually. The Dow Jones Wilshire 5000 is an index that measures the performance of all U.S.-headquartered equity securities with readily available price data.

CalPERS Custom Wilshire Microcap Index

The benchmark is based on the Wilshire 5000 index excluding tobacco stocks, less the CalPERS Custom Wilshire 2500 Index. This benchmark uses market capitalization and has annual reconstitution with dividends reinvested. Exposure to the universe of the smallest U.S. securities is obtained with this benchmark.

Capitalization Weighted

A weighting method based on the equity market capitalization of a stock. Market capitalization is calculated by multiplying the total outstanding shares of a stock by its price per share.

Closed End Funds

These are mutual funds professionally managed by an investment company with a finite number of shares issued. Closed end funds may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund.

Commodities and Futures Trading Commission (CFTC)

An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.

Common Factor

An element of return that influences many securities and, hence, is a "common factor" in the returns on those securities. By virtue of their common influence on many stocks, common factors contribute to market return as well as residual returns of the stocks that they influence most. Some common factors for domestic equity are capitalization, beta, price/earnings, price/book, interest sensitivity, and yield.

Corporate Actions

An action taken by a company that causes a material change in structure including, but not limited to, name, price, shares, capitalization, or other such events. Typical corporate actions include tender offers, mergers, Dutch auctions, and spin-offs.

Custodian

A bank or other financial institution that provides custody or safe keeping of stock certificates and other assets of an institutional investor.

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Dividend Reinvestment Program

A plan offered by a corporation in which shareholders may purchase additional shares with cash dividends on the dividend payment date. Often times the additional shares are sold at a discount and are commission free.

Dutch-Auction

A system in which the price of an item is gradually lowered until it meets a responsive bid and is sold.

Dynamic Completion Fund

A portfolio custom designed to control the misfit present in a plan sponsor's investment program.

Earnings/Price Ratio

The relationship of earnings per share to current stock price. The stock's trailing 12 months of reported earnings is often used as the earnings per share figure.

Equity Swaps

An agreement between two parties dictating a swap with payments on one or both sides, linked to the performance of equities or an equity index.

Exchange Traded Fund

An exchange-traded fund (ETF) is an investment company that is legally classified as an open-end company or a Unit Investment Trusts. An ETF is not classified as a mutual fund by the Securities and Exchange Commission because of limited redeemability. A

typical ETF is similar to an index fund, and will invest in either all of the securities of a selected index or a representative sample of the securities included in the index. An ETF may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund.

Forecasted Tracking Error

The expected or ex ante annualized standard deviation of the difference between the a return, defined as the average of the model estimates of at least two providers.

Fundamental Risk Model

A model used to predict the risks of individual stocks using fundamental and technical information. A covariance matrix is constructed from the factor's standard deviations and the correlations between one another. This covariance matrix can be used to predict the risk characteristics of a portfolio.

Futures

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

Hedge (Hedging)

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Market Capitalization

A stock's current market price multiplied by the current common shares outstanding.

Merger

The combination of two or more companies. Strictly speaking, only combinations in which one of the companies survives as a legal entity are called mergers.

Nonsystematic Risk

That part of a total return that cannot be explained by a single- or multi-factor model of returns. Such components of return can be diversified away in a sufficiently large and well-diversified portfolio.

Optimization

The best solution among all solutions available for consideration. Constraints on the investment problem limit the region of solutions that are considered and the objective function for the problem by capturing the investor's goals correctly, providing a criterion for comparing solutions to find the better ones. The optimal solution is the solution

among those admissible for consideration that has the highest value of the objective function.

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Performance Attribution

The process of attributing portfolio returns to causes. It decomposes past performance into separate components or factors contained within a multi-factor model.

Rebalancing

The process of modeling a portfolio through an optimizer or other portfolio construction method to generate a trade list that better aligns a portfolio with its investment objective.

Reconstitution

The periodic reformulation of a benchmark index which may entail the addition or deletion of securities along with changes to the parameters which determine the relative weight of included assets.

Return Deviation

The difference between the total return of a portfolio and the total return of the benchmark index.

Sampling

A method of indexation whereby a representative sample of the index constituents, rather than every share in the index, are purchased.

Specific Risk

That component of total risk that is unique or idiosyncratic to an individual security.

Speculation

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

Spin Offs

Companies which are created by separation from another company and begin to trade publicly on their own.

Systematic Risk

That portion of total risk that stems from exposure to the market in general and cannot be eliminated by diversification.

Tender Offer

A public offer to buy all or a portion of a specific security for cash, other securities, or both.

Tracking Error

The annualized standard deviation of the difference between the total return of the portfolio and the total return of the benchmark. The term tracking error is frequently used to describe return deviation, the total return of a portfolio, minus the total return of a benchmark index.

Uncovered Calls

A strategy in which an investor writes (sells) call options on the open market without owning the underlying security. This stands in contrast to a covered call strategy, where the investor owns the security shares that are eligible to be sold under the options contract.

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
DYNAMIC COMPLETION FUND—INTERNALLY MANAGED**

February 14, 2005

~~This Policy is effective immediately upon adoption and supersedes all previous internally managed dynamic completion fund investment policies~~

I. PURPOSE

~~This document sets forth the investment policy ("the Policy") for the Dynamic Completion Fund—Internally Managed ("the Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling risks and capturing returns associated with this segment of the capital markets.~~

II. STRATEGIC OBJECTIVE

~~Reducing style bias caused by the Active Domestic Equity Managers relative to the System's Custom Wilshire 2500 Index is the strategic objective of the Program. The Dynamic Completion Fund Portfolio ("the Portfolio") is a specialized, passively managed domestic equity portfolio structured to complement the Active Domestic Equity Managers' Portfolios. Outperforming the System's Custom Wilshire 2500 Index by means of the aggregate returns net of fees for the Dynamic Completion Fund and the Domestic Active Managers' Portfolios is the strategic objective of the Active Domestic Equity Program. The Dynamic Completion Fund Program shall provide a vehicle for facilitating manager transitions while minimizing transaction costs.~~

~~The Portfolio shall be managed to accomplish the following:~~

- ~~1. Enhance the System's total return and risk control capabilities;~~
- ~~2. Hedge against active (pre-retirement) liabilities;~~
- ~~3. Provide diversification to the System's overall investment program;~~
- ~~4. Reduce style bias of the aggregate Active Domestic Equity Managers' Portfolios;~~
- ~~5. Facilitate the transition of managers or change in manager allocations in a cost effective manner; and~~

~~6. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law.~~

~~III. RESPONSIBILITIES AND DELEGATIONS~~

~~A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy and delegated the responsibility for administering the Program portion of the System to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).~~

~~B. The System's Investment Staff's ("the Staff") duties include, but are not limited to, the following:~~

- ~~1. Developing and recommending the Policy to the Investment Committee;~~
- ~~2. Developing and maintaining a procedures manual subject to periodic review and updating that outlines Staff operational procedures used in implementing this Policy;~~
- ~~3. Implementing and adhering to the Policy;~~
- ~~4. Reporting immediately to the Investment Committee all violations of the Policy with explanations and recommendations;~~
- ~~4. Purchasing only securities that are outlined in the Policy; and~~
- ~~6. Reporting internally to senior management on the implementation of this Policy. This report will be prepared monthly to include, but is not limited to, the following:~~
 - ~~a. Current market value of the Portfolio;~~
 - ~~b. Performance of the Portfolio versus the benchmark as reported by the master custodian; and~~
 - ~~c. Performance attribution analysis which attributes return to its causes.~~

~~C. The General Pension Consultant ("the General Pension Consultant") is responsible for monitoring and evaluating the Fund's performance relative to the benchmark and Policy. The General Pension Consultant shall report to the Investment Committee on a quarterly basis, in accordance with its contract.~~

Monitoring shall include placing the Portfolio on Watchlist Status using the following criteria:

1. If the realized annual return deviation is less than 225 basis points, but greater than 300 basis points for two consecutive quarters, and the forecasted tracking error is greater than 150 basis points, then the Portfolio shall be placed on watchlist status.
2. If the realized annual return deviation is less than 300 basis points for two consecutive quarters, and the forecasted tracking error is greater than 150 basis points, then the portfolio shall remain on Watchlist Status and further review may be required.

IV. PERFORMANCE OBJECTIVE

Achieving the return for the broad domestic equity market is the performance objective. To accomplish this objective, using statistical models to approximate the return of the market rather than replicate it is more cost effective.

Return deviations between the Portfolio and the designated benchmark will be random, as expected. To account for the difference in the methodology calculating the returns for the benchmark and the portfolio, the resulting return deviation may require an adjustment. The System shall set the parameters in the statistical models it employs in such a manner that forecasted tracking error shall be within ± 150 basis points. Realized returns should fall no more than 150 basis points below the benchmark during any 12-month period. However, the System shall allow wider tracking error and return deviation when they result from a deliberate decision to reduce turnover or to control a specified risk contained in the Portfolio. The benchmark shall be entitled the "CalPERS Custom DCF Benchmark" ("the Benchmark"). A nationally recognized vendor experienced in constructing benchmarks shall develop and maintain this custom benchmark. Its construction shall be a function of the style and market capitalization biases generated by the Active Domestic Equity managers in the aggregate. The Benchmark shall complement the above-mentioned biases.

The Benchmark shall vary with time as changes occur in the active manager program. Changes to the program include alteration in the allocation to managers, the addition or deletion of managers, or changes in the active manager's benchmark as the market goes through its cycle. Consequently, the Benchmark may have risk exposures that differ significantly from the System's Custom Wilshire 2500 Index. Additionally,

~~the composition of the Benchmark shall reflect the liquidity constraints encountered by large funds such as the System.~~

~~V. INVESTMENT APPROACHES AND PARAMETERS~~

~~A. Investment Approach~~

~~Investors, managers, consultants, or other participants selected by the System shall passively manage the Portfolio. The construction of the Portfolio shall achieve the stated performance objective. An optimized sampled approach shall be used to generate an actual portfolio with risk characteristics closely resembling the benchmark. Creating a portfolio with fewer stocks than the benchmark will help avoid large transaction costs.~~

~~The optimization approach shall employ a fundamental risk model to define and decompose the Portfolio's risk exposures versus those of the benchmark.~~

~~B. Tracking~~

~~Maintaining the actual portfolio's risk characteristics in line with those of the benchmark shall minimize the return deviation. However, a Program benchmark embodies a complex set of construction procedures and may change dynamically through time.~~

~~Aside from risk exposure variations, other reasons for tracking errors include the following:~~

- ~~1. The Program benchmark assumes full investment at all times. An actual portfolio inevitably carries minimal investment in cash equivalents due to the timing of purchases and sales as well as the accrual of dividends and distributions versus actual payments.~~
- ~~2. The System's Custodian calculates performance using a monthly internal rate of return methodology, while the methodology used for the benchmark index is time weighted.~~
- ~~3. The Program benchmark shall be reconstructed at least quarterly. Additionally, the benchmark shall be reconstituted any time a change occurs in the allocations to the active managers. There are changes in the Program benchmark due to changes in the manager(s)' benchmarks or the System's Custom Wilshire 2500 Index.~~
- ~~4. The benchmark does not reflect any transaction costs, whereas an actual portfolio incurs transaction costs. To minimize transaction~~

~~costs in the actual portfolio at reconstitution, the transition of the actual portfolio to reflect changes in the benchmark will be done gradually. Some securities that are deleted from the benchmark are retained in the Portfolio because they generate little or no return deviation.~~

- ~~5. Return deviation may also be caused by adherence of the actual portfolio to the restrictions itemized in V. B and V. C.~~

~~Because the portfolio must incur transaction costs to purchase and sell securities, a trade-off must be made between incurring transaction costs and minimizing tracking error. Since transaction costs are always negative and reduce the value of the portfolio, while return deviation can be positive or negative, an analysis shall be employed to determine when increasing return deviation is more attractive than incurring transaction costs. However, estimated tracking error shall always be maintained within the 150 basis point policy limit.~~

C. Specific Risk Parameters

~~Specific risk parameters shall limit the return deviation of the portfolio versus the benchmark. A number of models shall ensure that the risk parameters are within a tolerance to achieve the performance objective. Since the System will add or eliminate models, the specific risk parameters for each model are detailed in the Procedures manual.~~

D. Restrictions

- ~~1. Foreign incorporated securities (including ADR's) shall not be held in the Portfolio for investment. Such securities received in corporate actions or through a change in classification shall be liquidated as cost effective as possible.~~
- ~~2. The benchmark of the System's Custom Wilshire 2500 Index does not contain Real Estate Investment Trusts (REITs). Consequently, the Program is prohibited from purchasing shares of REITs.~~
- ~~3. Individual security positions are limited to no more than 5% of the outstanding shares for the security. The System may maintain security positions which exceed this limit if a cost/benefit analysis of holding versus selling the position demonstrates an adverse affect on the tracking goals. However, individual securities positions shall be limited to 10% of the outstanding shares. To comply with the limit and as cost effective, securities exceeding the limit shall be liquidated.~~

- ~~4. The Portfolio may not purchase the securities of primary tobacco companies as identified by the Investor Responsibility Research Center Tobacco Company List.~~

~~E. Permissible Securities~~

- ~~1. Equity securities of publicly-traded companies headquartered in the U.S.~~
- ~~2. The Portfolio may hold securities not represented in the designated benchmark. Such holdings are justified by the following reasons:~~
 - ~~a. Liquidity constraints or excessive transaction costs, such as those required to sell certain securities obtained from corporate actions or from past benchmark reconstitutions.~~
 - ~~b. Expectation of inclusion in the benchmark at the next reconstitution.~~

~~F. Corporate Actions~~

~~The quarterly rebalancing of the benchmark shall include corporate actions (e.g., tender offers, mergers, Dutch auctions, and spin-offs). However, significant corporate actions shall be included more frequently. Staff shall adjust the Portfolio on a case-by-case basis, with issues requiring in-depth analysis referred to the Research Unit.~~

~~G. Rebalancing and Trading Activity~~

~~Investors, managers, consultants, or other participants selected by the System shall perform Portfolio rebalancings as is deemed necessary for maintaining the portfolio's risk characteristics in line with those of the benchmark.~~

~~A variety of trading techniques and liquidity sources shall be utilized to obtain best execution of the approved internal trade list.~~

~~Transaction cost analysis shall be performed and evaluated on a quarterly basis for monitoring trading efficiency as compared to that of a like universe. An outside vendor may prepare this analysis.~~

~~H. Attribution Analyses~~

~~The portfolio's risk characteristics shall be monitored monthly through the attribution reports. The reports, described below, shall determine any~~

necessary rebalancing of the actual portfolio due to variances highlighted in these reports.

1. Performance Attribution Report

A performance attribution report concerning the Program shall be generated monthly to ascribe performance to common factors, economic or industry sectors, and stock selection. Returns shall be analyzed to determine how performance is derived and if any appropriate adjustments should be made to the Portfolio.

2. Risk Attribution Summary

A risk attribution report shall be generated monthly, displaying the total, systematic, and nonsystematic risk of the Portfolio relative to the benchmark. Risk characteristics of the portfolio relative to that of the benchmark can then be analyzed to determine if any imbalances exist and if appropriate adjustments should be made to the Portfolio.

3. Over/Under Weighting Report

An over/under weight report shall be generated monthly displaying stocks with weights ± 5 basis points versus the benchmark weight. These stocks shall be evaluated for possible decrease or increase in the security's weight in the portfolio versus the benchmark weight.

VI. BENCHMARK

The benchmark shall be entitled the "CalPERS Custom DCF Benchmark" ("the Benchmark"). A nationally recognized vendor experienced in constructing benchmarks shall develop and maintain this custom benchmark. Its construction shall be a function of the style and market capitalization biases generated by the Active Domestic Equity managers in the aggregate. The Benchmark shall complement the above-mentioned biases.

The Benchmark shall vary with time as changes occur in the active manager program. Changes to the program include alteration in the allocation to managers, the addition or deletion of managers, or changes in the active manager's benchmark as the market goes through its cycle. Consequently, the Benchmark may have risk exposures that differ significantly from the System's Custom Wilshire 2500 Index. Additionally, the composition of the Benchmark shall reflect the liquidity constraints encountered by large funds such as the System.

~~VII. GENERAL~~

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.~~

~~VIII. DERIVATIVES AND LEVERAGE POLICY~~**~~A. Strategies~~**

~~The Portfolio may utilize financial futures and options for the following purposes:~~

- ~~1. Permitting the investment of dividends received;~~
- ~~2. Equitizing cash and dividends receivable;~~
- ~~3. Allowing the adjustment of the portfolio's risk characteristics consistent with the risk exposure of the index, in the most cost effective and efficient manner available; and~~
- ~~4. Facilitating investment of cash flows related to contributions, withdrawals, or any asset allocation change.~~

~~B. Justification~~

~~Justification for the above-mentioned strategies includes the following:~~

- ~~1. Lower transaction costs compared with purchase of underlying securities;~~
- ~~2. High correlation to price movement of benchmark; and~~
- ~~3. Provide the ability to alter risk characteristics versus the benchmark without disrupting the underlying portfolio or unnecessarily increasing turnover.~~

~~C. Restrictions~~

~~Restrictions on the above-mentioned strategies are as follows:~~

- ~~1. Uncovered call writing is prohibited;~~
- ~~2. Leverage is prohibited. The use of futures contracts as specified in this Policy will not constitute leverage;~~

- ~~3. Non-exchange traded derivatives are prohibited;~~
- ~~4. Speculation is prohibited; and~~
- ~~5. Traders are limited in their authorization of trading stock futures to 1000 long contracts and 1000 short contracts, without prior written authorization from management.~~

~~D. Permissible Derivatives~~

~~Only exchange-traded derivatives will be utilized in the Program Portfolio, which may include futures and options.~~

~~E. Futures Commission Merchants (FCM)~~

~~Futures Commission Merchants are selected with the following broad range of criteria:~~

- ~~1. Low cost clearing and executing charges;~~
- ~~2. Securely capitalized firm;~~
- ~~3. Clear account statements and efficient reconciliation;~~
- ~~4. Responsive personnel;~~
- ~~5. Discrete and efficient operation;~~
- ~~6. Personal interview; and~~
- ~~7. Reference checks.~~

~~IX. GLOSSARY OF TERMS~~

~~Definitions for key words used in this policy are located in the Equity Glossary of Terms which is included in the System's Master Glossary of Terms.~~

~~Approved by the Policy Subcommittee: May 29, 1998
Adopted by the Investment Committee: June 15, 1998
Revised by the Policy Subcommittee: May 13, 1999
Adopted by the Investment Committee: August 16, 1999
Revised by the Policy Subcommittee: December 10, 2004
Adopted by the Investment Committee: February 14, 2005~~

Asset Class Glossary: Equities
Policy: Dynamic Completion Fund - Internally Managed
March 17, 2008

Active Management

An investing strategy that seeks to outperform the broad market benchmark by creating a portfolio that is different from the broad market benchmark. In equities, this is usually accomplished by overweighting and underweighting specific sectors or securities relative to the benchmark.

Benchmark

A set of securities with associated weights that provides a passive representation of a manager's investment process. The benchmark return is usually used to measure a manager's performance results.

Common Factor

An element of return that influences many securities and, hence, is a "common factor" in the returns on those securities. By virtue of their common influence on many stocks, common factors contribute to market return as well as residual returns of the stocks that they influence most. Some common factors for domestic equity are capitalization, beta, price/earnings, price/book, interest sensitivity, and yield.

Corporate Actions

An action taken by a company that causes a material change in structure including, but not limited to, name, price, shares, capitalization, or other such events. Typical corporate actions include tender offers, mergers, Dutch auctions, and spin-offs.

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Dutch Auction

A system in which the price of an item is gradually lowered until it meets a responsive bid and is sold.

Dynamic Completion Fund

A portfolio custom designed to control the misfit present in a plan sponsor's investment program.

Forecasted Tracking Error

The expected standard deviation of a return, defined as the average of the model estimates of at least two providers.

Fundamental Risk Model

A model used to predict the risks of individual stocks using fundamental and technical

information. A covariance matrix is constructed from the factor's standard deviations and the correlations between one another. This covariance matrix can be used to predict the risk characteristics of a portfolio.

Hedge (Hedging)

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Market Capitalization

A stock's current market price multiplied by the current common shares outstanding.

Merger

The combination of two or more companies. Strictly speaking, only combinations in which one of the companies survives as a legal entity are called mergers.

Nonsystematic Risk

That part of a total return that cannot be explained by a single- or multi-factor model of returns. Such components of return can be diversified away in a sufficiently large and well-diversified portfolio.

Optimization

The best solution among all solutions available for consideration. Constraints on the investment problem limit the region of solutions that are considered and the objective function for the problem by capturing the investor's goals correctly, providing a criterion for comparing solutions to find the better ones. The optimal solution is the solution among those admissible for consideration that has the highest value of the objective function.

Performance Attribution

The process of attributing portfolio returns to causes. It decomposes past performance into separate components or factors contained within a multi-factor model.

Rebalancing

Modeling a portfolio through an optimizer to obtain roughly equal buy and sell trade lists.

Reconstitution

The screening which occurs every June 30 for potential additions or deletions to the index. The screening examines the market capitalization of Real Estate Investment Trust (REIT) stocks, their content, concentration of ownership and position in the market sector. Stocks which no longer meet the criteria of the REIT index according to this policy will be eliminated from the index while new stocks which have qualified in the

past year are included. A tolerance level will be applied to stocks which have dropped from the index since the past year in order to minimize transactional costs.

Return Deviation

The difference between the total return of a portfolio and the total return of the benchmark index.

Risk Attribution

The process of decomposing total risk and attributing it among the factors contained within a multi-factor model.

Sampling

A method of indexation whereby a representative sample of the index constituents, rather than every share in the index, are purchased.

Speculation

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

Spin Offs

Companies which are derived from other companies and begin to trade publicly on their own.

Style Bias

The difference between an aggregate or individual manager benchmark and the target.

Systematic Risk

That portion of total return that can be explained by a single or multi-factor model of returns. Such components of return are directly proportional to the market's return and cannot be eliminated by diversification.

Tender Offer

An offer to buy securities for cash, other securities, or both.

Tracking Error

The annualized standard deviation of the difference between the total return of the portfolio and the total return of the benchmark. The term tracking error is frequently used to describe return deviation, the total return of a portfolio, minus the total return of a benchmark index.

Variance

A statistical term for the variability of a random variable about its mean. The variance is defined as the sum of the squares of the deviation from the mean.

Watchlist Status

Indicates a level of concern, the degree of which shall be unique to each situation with the parameters specified in the relevant policy.